

WHAT IS CLAIMED IS:

Sub B2

1. A resilient surface covering having improved wear and/or stain resistance comprising a wear layer comprising a urethane based acrylate containing aluminum oxide.

2. The surface covering of claim 1, wherein said wear layer includes a bottom coat layer and a top coat layer or an outermost layer and wherein said top coat layer or said outermost layer contains said urethane based acrylate containing said aluminum oxide.

3. The surface covering of claim 1, wherein said aluminum oxide is calcined or fused aluminum oxide.

4. The surface covering of claim 2, wherein said bottom coat layer comprises polyvinylchloride.

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5. The surface covering of claim 1, wherein said ~~aluminum oxide is present~~ in an amount of from about 1 g/m² to about 50 g/m² of said wear layer.

6. The surface covering of claim 5, wherein said ~~aluminum oxide is present~~ in an amount of from about 3 g/m² to about 25 g/m² of said wear layer.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, D. C. 20005
202-408-4000

6. The surface covering of claim 4, wherein said bottom coat layer further comprises aluminum oxide.

8. The surface covering of claim 1, wherein said aluminum oxide has an average particle size of from about 10 to about 70 microns.

Sub B3 9. The surface covering of claim 8, wherein said aluminum oxide has an average particle size of from about 25 to about 35 microns.

8.10. The surface covering of claim 1, wherein said aluminum oxide is placed between two coatings.

9.11. The surface covering of claim 2, wherein said bottom coat layer contains said urethane based acrylate containing said aluminum oxide.

10.12. The surface covering of claim 1 which is a wood floor product.

11.13. The surface covering of claim 1, wherein the wear layer includes at least a bottom coat layer and a top coat layer and the aluminum oxide is present in at least one of said bottom or top coat layers.

14. A method to improve wear and/or stain resistance to a resilient surface covering comprising adding an effective amount of aluminum oxide to a urethane based acrylate top coat layer or outermost layer of a resilient surface covering or adding said aluminum oxide to a formulation of a urethane based acrylate and forming a top coat layer from said formulation.

15. The method of claim 14, wherein said aluminum oxide is present in an amount of from about 3 g/m² to about 25 g/m² of the layer containing said aluminum oxide.

16. The method of claim 14, wherein said aluminum oxide is added to said top coat layer after said top coat layer is formed and while said top coat layer is uncured.

17. The method of claim 14, wherein said resilient surface covering comprises a bottom coat layer comprising polyvinylchloride in addition to said urethane based acrylate top coat layer.

18. The method of claim 17, wherein said bottom coat layer further comprises aluminum oxide.

19. The method of claim 14, wherein said aluminum oxide is calcined or fused.

20. The method of claim 14, wherein said aluminum oxide has an average particle size of from about 25 to about 35 microns.

Sub B5

21. A method of making a resilient surface covering having improved wear and/or stain resistance comprising forming a layer comprising a urethane based acrylate containing aluminum oxide.

²⁰
~~22~~. The method of claim ¹⁹~~21~~, wherein said layer is a top coat layer.

²¹
~~23~~. The method of claim ¹⁹~~21~~, wherein said layer of said resilient surface covering is a wear layer comprising said top coat layer and a bottom coat layer.

Sub B6 ²⁴
~~24~~. The method of claim 21, wherein said aluminum oxide is present in an amount of from about 3 g/m² to about 25 g/m² of said layer.

⁴³
~~25~~. The method of claim ¹⁹~~21~~, wherein in order to form said top coat layer comprising said urethane based acrylate containing aluminum oxide, said aluminum oxide is added to said top coat layer after said top coat layer is formed and while said top coat layer is uncured.

²⁴
~~28~~. The method of claim ²¹~~23~~, wherein said bottom coat layer comprises polyvinylchloride.

²⁵
~~27~~. The method of claim ²⁴~~26~~, wherein said bottom coat layer further comprises aluminum oxide.

²⁶
~~28~~. The method of claim ¹⁹~~21~~, wherein said aluminum oxide is calcined or fused aluminum oxide.

Sub B7 ²⁹. The method of claim 21 wherein said aluminum oxide has an average particle size of from about 25 to about 35 microns.

Add B8

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& DUNNER, L.L.P.
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202-408-4000